

Pathways to Professionalism: Work Placement and Career Development of BS Medical Technology Graduates

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Abstract

This study examined the work placement and career development of Bachelor of Science in Medical Technology graduates of the University of Perpetual Help–Dr. Jose G. Tamayo Medical University (UPH-DJGTMU) from academic years 2021–2025. Guided by the Input–Process–Output (IPO) framework, the study described the graduates’ demographic, educational, employment, and career development profiles and determined the relationships among competencies acquired, employment relevance, career development, employment challenges, and employment outcomes. A descriptive-correlational research design was employed involving 142 graduates selected through convenience sampling. Data were gathered using a researcher-developed, content-validated graduate tracer study questionnaire administered through online and printed survey forms. Descriptive statistics, Spearman’s rank-order correlation, Chi-square test of independence, Kruskal–Wallis test, and One-Way ANOVA were used for data analysis. Findings revealed that most graduates secured employment within one to three months after graduation, were employed full-time in private healthcare institutions, and held positions in hospitals and diagnostic or clinical laboratories. Critical thinking, communication, and laboratory skills were identified as the most useful competencies acquired from the program, while low salary offers, limited job opportunities, and lack of work experience were the most common employment challenges. Significant positive relationships were found between employment relevance and career development activities, employment relevance and monthly salary, and competencies acquired with employment status and employment relevance. Employment challenges were significantly associated with time before employment and salary level. The study concluded that the BS Medical Technology program effectively prepared graduates for employment and professional growth. It recommends strengthening competency-based instruction, expanding industry partnerships, enhancing career support services, and encouraging continuing professional development and specialization to further improve graduate employability. The study supports Sustainable Development Goal (SDG) 4: Quality Education by promoting quality higher education that enhances graduate readiness for professional practice and SDG 8: Decent Work and Economic Growth by improving graduate employability and workforce participation. Its sustainability impact lies in strengthening institutional quality assurance, supporting workforce development in the healthcare sector, and informing evidence-based curriculum enhancement and career support initiatives.

Keywords: Career Development, Clinical Laboratory Science, Employability, Graduate Tracer Study, Higher Education Outcomes, Medical Technology Graduates

1. Introduction

Medical Technology is essential to healthcare because laboratory findings guide clinical decisions and contribute to public health monitoring. As diagnostic demands increase, healthcare systems require laboratory professionals who possess appropriate technical knowledge, professional skills, and readiness for practice. Workforce shortages and the movement of health professionals across locations further intensify the need for institutions to produce graduates whose preparation remains responsive to workplace requirements. Graduate tracer studies assess the connection between academic preparation and graduates’ subsequent professional outcomes. They document employment status, time to employment, job relevance, career progression, competencies acquired, and challenges encountered in obtaining or maintaining work. Such evidence allows institutions to determine whether program outcomes correspond with labor-market needs and whether curricular and career-support mechanisms require improvement.

The related literature reflected in the manuscript centers on four recurring themes. The first is education-to-employment alignment, particularly whether graduates obtain work that directly uses the knowledge and skills developed in the BS Medical Technology program. The second is competency development, including laboratory proficiency and transferable abilities needed for effective professional practice, a concern echoed in international reviews of laboratory science curricula and workforce preparedness (Donkin & Gusset, 2024). The third is career development through licensure, advanced studies,

work-related training, certification, specialization, and other professional activities. The fourth is the presence of employment barriers, such as limited job opportunities, low salary offers, lack of experience, competition, and geographic constraints. Previous studies involving Medical Technology graduates in the Philippines generally indicate favorable employment outcomes and strong licensure performance (Cabiling et al., n.d.; Hernandez et al., n.d.; Quinto & Posada, 2020). However, the literature has largely emphasized basic employability indicators rather than examining how competencies, employment relevance, professional development, and employment challenges interact. An integrated tracer study is therefore needed to connect graduates' educational preparation with the quality, relevance, and development of their employment outcomes.

At the local level, limited published evidence is available on the professional outcomes of BS Medical Technology graduates of UPH-DJGTMU. This restricts the institution's ability to evaluate graduate transitions systematically and to use alumni outcomes as evidence for program improvement. At the national level, Philippine graduate tracer studies have generally reported favorable employability and licensure outcomes among Medical Technology graduates, but relational analyses of competencies, career development, job relevance, and employment barriers remain limited. Recent national policy assessments similarly emphasize the need for stronger alignment between higher education outcomes and labor-market requirements (Second Congressional Commission on Education [EDCOM II], 2026). At the global level, healthcare systems continue to face increasing diagnostic demands, workforce shortages, and the migration of health professionals. These conditions make the preparation, employment, retention, and continuing development of laboratory professionals important concerns for higher education and healthcare institutions. The study addresses these interconnected concerns within one university while recognizing that its graduates may reside or work within or outside the Philippines.

The study is guided by the Input–Process–Output (IPO) framework. The inputs include the graduates' demographic and educational profiles, competencies acquired through the BS Medical Technology program, and employment-related conditions. The process covers the graduates' transition from education to employment, participation in career development activities, and experiences in seeking or maintaining work. The outputs are reflected in employment status, time to employment, job relevance, type and sector of employment, present position, promotion, salary, specialization, and other career outcomes. The IPO framework provides an organized basis for examining how graduate characteristics and academic preparation relate to work placement and professional development. It also supports the analysis of relationships among competencies, employment relevance, career development, employment challenges, and career outcomes.

The principal gap is the limited institution-specific evidence on the employment experiences and career trajectories of UPH-DJGTMU BS Medical Technology graduates. Existing Philippine studies have also concentrated mainly on employment and licensure indicators, leaving limited analysis of the relationships among acquired competencies, relevance of employment, career development, and challenges encountered in the labor market. Addressing these gaps is necessary to determine how effectively the program prepares graduates for professional practice and career advancement. A systematic assessment of graduates from academic years 2021 to 2025 can provide evidence for curriculum enhancement, competency development, career-support services, institutional planning, and policy formulation. It can also establish a reference point for subsequent tracer studies and workforce-development research in Medical Technology.

The study is aligned with SDG 3 – Good Health and Well-Being because the preparation and employment of competent Medical Technologists support accurate diagnosis, treatment, and public health surveillance. It contributes to SDG 4 – Quality Education by evaluating whether academic preparation, acquired competencies, and professional-development opportunities remain relevant to workplace needs. It also relates to SDG 8 – Decent Work and Economic Growth through its examination of employment access, job relevance, salary, career progression, and barriers affecting graduates' participation in the workforce. The study further supports SDG 17 – Partnerships for the Goals by generating evidence that may strengthen coordination among the university, healthcare institutions, curriculum developers, administrators, and policymakers.

The study contributes to public health sustainability by examining whether the institution produces laboratory professionals capable of supporting continuing diagnostic and surveillance needs. It contributes to educational and institutional sustainability by providing graduate-outcome evidence that can guide curriculum review, competency-based learning, career services, and program improvement. Its focus on employment relevance, salary, professional development, and employment barriers also supports socio-economic sustainability by identifying conditions that influence stable work and career advancement. The study additionally supports policy and governance sustainability by providing administrators, faculty members, curriculum developers, and policymakers with evidence for workforce planning and institutional decision-making. By connecting academic preparation, professional competencies, employment conditions, and career outcomes, the research offers a multidisciplinary basis for sustaining the quality of Medical Technology education and the healthcare workforce it serves.

This study aims to examine the work placement and career development of BS Medical Technology graduates of UPH-DJGTMU from academic years 2021 to 2025. It describes their demographic and educational profiles, employment characteristics, competencies acquired, career development activities, and challenges encountered in seeking or maintaining employment. It also determines the relationships among employment relevance, competencies, employment challenges, career development, and career outcomes. The study is limited to graduates who were successfully reached and voluntarily participated in the tracer survey. Respondents may be residing or employed in different locations within or outside the Philippines. The analysis relies on self-reported, cross-sectional data collected at one point in time and does not include graduates from other institutions, graduates who could not be reached, qualitative accounts of workplace experiences, or employer feedback.

2. Material and methods

2.1 Research Design

The study employed a descriptive-correlational survey design to examine the work placement and career development of BS Medical Technology graduates of the University of Perpetual Help–Dr. Jose G. Tamayo Medical University (UPH-DJGTMU) from academic years 2021 to 2025. It described the graduates' demographic and educational profiles, employment characteristics, competencies, employment challenges, and career development outcomes, and tested the relationships among competencies, employment relevance, career development, and employment outcomes.

2.2 Locale of the Study

The study was institutionally based at UPH-DJGTMU in Biñan, Laguna, Philippines. It covered accessible graduates of the BS Medical Technology program from academic years 2021 to 2025, including those residing or employed within and outside the Philippines.

2.3 Respondents of the Study

The respondents were UPH-DJGTMU BS Medical Technology graduates from academic years 2021 to 2025 who voluntarily participated. Graduates who were deceased, remained unreachable after three contact attempts, or declined participation were excluded.

2.4 Sample and Sampling Procedure

Registrar records indicated an estimated population of approximately 301 graduates. Slovin's formula with a 5% margin of error initially yielded a minimum sample of 172 respondents, but the study obtained 142 because of limited accessibility, varying response rates across batches, and non-response. A non-probability convenience sampling procedure was used, and participation was voluntary. Although all academic year groups were approached, the final sample was not proportionally distributed across graduation batches.

2.5 Research Instrument

Data were collected using a researcher-developed graduate tracer survey questionnaire administered through Google Forms and printed forms. It covered general information; educational background, including graduation batch, Medical Technology Licensure Examination status, other professional examinations, advanced studies, and work-related training; employment data, including employment status, time to employment, type and sector of institution, nature of employment, and degree relevance; and career development, including current position, promotions, salary, specialization, and professional development activities. Additional items assessed competencies acquired and challenges encountered in obtaining or maintaining employment. The measured outcome areas were employment outcomes, career development, competencies, and employment challenges. Employment outcomes included status, time to first employment, job relevance, institution type, and sector. Career development covered position, promotions, salary, specialization, and professional development. Competencies represented self-reported knowledge and technical and professional skills, while employment challenges included low-salary offers, limited opportunities, lack of experience, competition, and location-related constraints. The questionnaire was content validated by the Dean of the College of Medical Technology, an officer of the University Alumni Association, and a Registered Psychometrician. It was pilot tested among 30 graduates excluded from the final sample to assess clarity, relevance, comprehensibility, and administration issues. Cronbach's alpha was not computed because the instrument primarily contained demographic and factual items rather than multiple-item scales measuring a latent construct.

2.6 Data Gathering Procedure

Approval was obtained from the institutional Research Ethics Committee and Research Office before data collection from April 2026 to May 2026. The questionnaire was distributed mainly through Google Forms with the assistance of faculty members, program coordinators, alumni officers, official alumni social media platforms, including Facebook, Messenger, and Viber, and institutional email. Bi-weekly reminders were sent to non-respondents, while printed questionnaires were provided to graduates with limited internet access. Electronic consent was obtained before online participation, and written

consent was secured for printed forms. Responses were checked for completeness and consistency, duplicates were removed through email verification and response checking, and the online and printed data were consolidated in Microsoft Excel before statistical analysis.

2.7 Data Analysis Techniques

The data were encoded, cleaned, and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Frequency distributions, percentages, means, and standard deviations summarized the respondents' profiles, employment characteristics, competencies, challenges, and career development outcomes. Spearman Rank-Order Correlation measured the strength and direction of relationships involving ordinal variables or data that did not meet parametric assumptions. The Chi-square Test of Independence examined associations between categorical variables, including competencies and employment profile, employment relevance and career development, and employment challenges and employment outcomes. Group differences were tested using the Kruskal-Wallis Test for non-parametric data or One-Way Analysis of Variance (ANOVA) when normality and homogeneity of variance were satisfied. Hypotheses were tested at the 0.05 significance level; p-values below 0.05 were considered statistically significant, while values of 0.05 or higher indicated insufficient evidence to reject the null hypothesis.

2.8 Ethical Considerations

The study received approval from the UPHSL Research Ethics Committee before data collection. Participation was voluntary, informed consent was obtained, and respondents could withdraw at any time without penalty or consequence. In compliance with the Data Privacy Act of 2012 (Republic Act No. 10173), information was treated confidentially, personal identifiers were removed, code numbers preserved anonymity, and data were securely stored with access limited to the researchers. Findings may be disseminated through research presentations, institutional reports, and peer-reviewed publications for curriculum enhancement, policy development, and future research.

3. Results and Discussion

3.1 Graduate Profiles and Professional Outcomes

3.1.1 Demographic Profile

Most respondents were single ($n = 137$, 96%), while five (4%) were married. Females comprised 104 respondents (73%) and males 38 (27%). Most were aged 23–25 years ($n = 79$, 56%) or 26–28 years ($n = 57$, 40%); five (4%) were over 29 years old, and one (1%) was aged 20–22 years. Residence was concentrated in Laguna ($n = 111$, 78%), followed by the National Capital Region ($n = 15$, 11%), nearby provinces ($n = 9$, 6%), international locations ($n = 4$, 3%), and other Philippine provinces ($n = 3$, 2%). The profile indicates that the sample largely represented young, early-career graduates transitioning from education to professional practice. The high proportion of single respondents is consistent with Chatoor et al. (2024), who associated unmarried status with the early employment phase and delayed family commitments. Female predominance reflects established patterns in allied health and laboratory professions, as Boniol et al. (2019) identified a continuing concentration of women in the health workforce. The age distribution likewise corresponds with the early career adjustment period described by OECD (2023), when employment stability and career progression remain developing. The concentration in Laguna also reflects the localized employment patterns discussed in OECD (2023) regional labor mobility studies, in which graduates often remain near their educational institutions and accessible job opportunities.

3.1.2 Educational and Professional Background

The respondents were primarily graduates of 2023 ($n = 59$, 42%) and 2022 ($n = 52$, 37%), followed by 2025 ($n = 18$, 13%), 2024 ($n = 9$, 6%), and 2021 ($n = 4$, 3%). Most had passed the Medical Technology Licensure Examination ($n = 109$, 77%), while 33 (23%) had not. Only eight respondents (6%) held additional professional credentials: five had MLS-ASCP certification, while one each had passed the AAPC Certified Professional Coder examination, Licensure Examination for Teachers, or Medical Laboratory Technician certification under the Dubai Health Authority. The most cited reasons for taking BS Medical Technology were parental or relative influence ($n = 52$, 37%), overseas employment opportunities ($n = 44$, 31%), and attractive compensation ($n = 32$, 23%). Twenty respondents (14%) were pursuing advanced studies, mostly Medical School ($n = 13$, 65%) or a Master of Science in Clinical Laboratory Science ($n = 4$, 20%). Forty-five respondents (32%) had attended work-related training, primarily for professional development ($n = 30$, 67%). The concentration of recent graduates confirms that most respondents were still establishing employment stability and professional identity, a transition commonly observed during the first years after graduation (OECD, 2023). The high licensure rate suggests substantial readiness for regulated healthcare practice, while the non-passer group indicates that credential acquisition may still constrain entry and progression; OECD (2023) identifies professional licensing as a major labor-market screening mechanism in health occupations. Limited additional certification suggests that early-career graduates prioritize core employability credentials before pursuing specialization, consistent with Whalley et al. (2024). Career choice was also strongly shaped by family influence and anticipated economic returns, supporting Hooley et al. (2022), who emphasized the role of social expectations and perceived employment opportunities in graduate decisions. The low postgraduate participation indicates a preference for immediate workforce entry, as OECD (2023) noted that graduates often delay

further study until financially secure. Likewise, limited participation in work-related training shows that continuing development was not yet fully integrated into all career pathways, although Chatoor et al. (2024) found that structured career services and development activities improve employability and lifelong learning.

3.1.3 Employment Placement

The largest group obtained employment within one to three months after graduation ($n = 53$, 37%). Others required seven to twelve months ($n = 28$, 20%), four to six months ($n = 17$, 12%), more than one year ($n = 14$, 10%), or less than one month ($n = 10$, 7%), while 20 respondents (14%) had no work experience. Current employment was highly relevant to the degree for 100 respondents (70%), moderately relevant for 11 (8%), slightly relevant for eight (6%), and not relevant for 23 (16%). Full-time employment accounted for 103 respondents (73%), while 26 (18%) were unemployed. Most employed respondents worked in diagnostic or clinical laboratories ($n = 51$, 36%) or hospitals ($n = 44$, 31%), and the private sector employed 109 respondents (77%), compared with seven (5%) in government service. The predominance of employment within one to three months indicates relatively rapid labor-market absorption, consistent with OECD (2023), which reports faster employment transitions among health graduates because of continuing demand for healthcare services and laboratory personnel. The high proportion of degree-relevant work reflects strong alignment between academic preparation and occupational placement, supporting Boniol et al. (2019) on the close job-to-skill match in technical health professions. However, the unemployed group shows that absorption was uneven and may vary with licensing, experience, location, and local market saturation, as also noted by OECD (2023). The concentration in laboratories and hospitals reflects the principal employment settings reported by the respondents in the present study. Private-sector dominance further suggests greater entry-level recruitment capacity in private healthcare institutions, which OECD (2023) describes as having more flexible hiring processes than government systems.

3.1.4 Career Development

Medical Technologists formed the largest occupational group ($n = 70$, 49%), followed by respondents who were not working ($n = 26$, 18%) and those in non-laboratory occupations ($n = 21$, 15%). Fourteen respondents (10%) were Senior Medical Technologists, five (4%) were Chief Medical Technologists, five (4%) were Laboratory Technicians or Phlebotomists, and one (1%) was a Laboratory Supervisor or Manager. Most had received no promotion ($n = 101$, 71%), while 40 (28%) had received one to two promotions. Monthly income was concentrated at PHP 15,000–24,999 ($n = 68$, 48%) and PHP 25,000–34,999 ($n = 36$, 25%). Fifty-six respondents (40%) had remained in their first job, while 53 (37%) had changed jobs one to two times. Most reported no specialization ($n = 86$, 61%); among identified fields, Clinical Chemistry was most common ($n = 38$, 27%). Seminars, workshops, and training were the leading career development activities ($n = 98$, 69%), followed by self-directed learning ($n = 33$, 23%) and certification or credentialing ($n = 31$, 22%). The large proportion working as Medical Technologists indicates substantial alignment between the degree and professional placement, consistent with evidence that health science graduates often enter degree-related roles because of continuing demand for diagnostic services (Leadbeatter et al., 2023). Nevertheless, unemployment and non-laboratory employment show that some graduates experienced delayed or alternative career pathways, a pattern also reported by Rangel (2024). The absence of promotion among most respondents reflects their early career stage and the hierarchical, tenure- and performance-based advancement systems described in OECD (2023). The concentration in entry-level salary bands reflects broader concerns regarding remuneration, working conditions, and structured career pathways within the health workforce (World Health Organization [WHO], 2022). Limited job changes indicate relative employment stability, although Chatoor et al. (2024) observed that early-career health professionals may move when seeking permanent or higher-paying work. The high proportion of graduates without specialization highlights the importance of continuing education, competency development, lifelong learning, and structured career pathways among health professionals (WHO, 2022). Strong participation in short-term professional development indicates continuing learning despite limited postgraduate enrollment, supporting Chatoor et al. (2024) on the contribution of structured development activities to employability and career progression.

3.1.5 Perceived Useful Competencies

Critical thinking was the most frequently identified useful competency ($n = 120$, 85%), followed by communication skills ($n = 113$, 80%), laboratory skills ($n = 109$, 77%), and problem-solving skills ($n = 102$, 72%). Respondents also identified computer literacy ($n = 90$, 63%), time management ($n = 81$, 57%), leadership skills ($n = 64$, 45%), and research skills ($n = 25$, 18%). Eleven respondents (8%) considered the item not applicable. The findings show that graduates relied most on analytical reasoning, communication, and core laboratory abilities in their employment. These competencies support diagnostic accuracy, patient safety, and collaboration, consistent with Boniol et al. (2019). Research skills were least frequently applied, suggesting that many respondents worked primarily in routine clinical and diagnostic settings rather than research-oriented roles; workload and clinical priorities may reduce research participation among early-career professionals (Chatoor et al., 2024). The perceived usefulness of problem-solving, computer literacy, time management, and leadership also reflects the combined technical, digital, and interpersonal competencies required in technology-embedded healthcare environments, as described by OECD (2023).

3.2 Employment Challenges

Low salary offers were the most frequently reported employment challenge ($n = 89$, 63%), followed by limited job opportunities ($n = 78$, 55%) and lack of experience ($n = 65$, 46%). Other barriers included location constraints ($n = 46$, 32%), competition ($n = 36$, 25%), board examination status ($n = 28$, 20%), and family responsibilities ($n = 17$, 12%). Twenty-three respondents (16%) reported no challenges, while lack of advanced training was least reported ($n = 9$, 6%).

The predominance of low salary offers indicates that available healthcare employment did not always meet graduates' compensation expectations, especially at entry level, consistent with findings that early-career health professionals often experience dissatisfaction with standardized starting salaries and slow salary progression (Gesing et al., 2022). Such dissatisfaction may also elevate turnover risk, since incentive structures and salary levels have been linked to job satisfaction, motivation, and retention among medical laboratory technologists (Al-Qathmi & Zedan, 2021). The limited importance of advanced training as an entry barrier suggests that specialization is more relevant to later career growth than initial employment, as reported by Leadbeatter et al. (2023). The remaining barriers reflect both structural and personal constraints. Geographic distribution, workforce saturation, and experience requirements can delay healthcare graduates' transition into employment (Taylor et al., n.d.), while mismatch between graduate supply and available positions may intensify competition, underemployment, and delayed placement (Li et al., 2022).

3.3 Relationships Among Employment, Competencies, and Career Outcomes

3.3.1 Employment Relevance and Career Development

Employment relevance had a weak but significant positive relationship with present employment status ($\rho = 0.219$, $p = 0.009$). It was not significantly associated with the number of promotions received ($\chi^2 = 9.55$, $p = 0.145$). However, employment relevance was significantly associated with monthly salary range ($\chi^2 = 54.1$, $p = 0.000$) and was moderately and positively related to participation in career development activities ($\rho = 0.331$, $p = 0.000$). The relationship between degree relevance and employment status indicates that graduates whose work matched their training were more likely to have stable employment, consistent with OECD (2023), which associates field alignment with smoother transitions and greater job stability. The absence of a promotion relationship suggests that advancement depended more on tenure, institutional structures, and performance than on degree relevance alone, as clinical progression is often hierarchical and experience-based (Chatoor et al., 2024). The salary association indicates that degree-aligned positions tended to correspond with higher compensation categories, supporting Boniol et al. (2019) on the returns attached to specialized and licensed health occupations. The positive link with career development participation further indicates that relevant workplaces may provide stronger access to training and professional growth, consistent with Chatoor et al. (2024).

3.3.2 Competencies and Employment Profile

Competencies acquired from the program were not significantly related to time before employment ($\rho = -0.057$, $p = 0.497$). They had weak but significant positive relationships with present employment status ($\rho = 0.168$, $p = 0.046$) and relevance of current employment ($\rho = 0.166$, $p = 0.049$). Competencies also had a significant moderate negative relationship with type of employing institution ($\rho = -0.303$, $p = 0.000$). The absence of a relationship with employment waiting time indicates that labor-market demand and institutional hiring capacity may have influenced the speed of employment more strongly than perceived competencies, as noted by Sarsale et al. (2024). The positive relationship with employment status suggests that stronger perceived skills supported employability and continued workforce participation, consistent with George and Paul (2023). The relationship with job relevance indicates that competency development contributed to job-skill alignment, which Leadbeatter et al. (2023) identify as central to employability in role-specific health professions. The inverse relationship with institution type suggests that competency levels were associated with placement in particular institutional settings, reflecting the uneven distribution of specialized healthcare positions described by Rubio et al. (2025).

3.3.3 Employment Challenges and Employment Outcomes

Employment challenges had a significant negative relationship with time before employment ($\rho = -0.280$, $p = 0.000$) and a significant association with current monthly salary rate ($\chi^2 = 93.21$, $p = 0.000$). They were not significantly related to present employment status ($\rho = 0.061$, $p = 0.472$) or relevance of current employment ($\rho = 0.156$, $p = .063$). The significant relationship with time before employment indicates that barriers such as limited opportunities, lack of experience, and location constraints were associated with delayed labor-market entry, consistent with OECD (2023). The absence of a relationship with current employment status suggests that early obstacles did not necessarily prevent eventual employment, since healthcare graduates may follow non-linear entry routes through contractual or lower-level positions (Leadbeatter et al., 2023). The non-significant relationship with job relevance indicates that occupational matching depended more on labor-market structure and institutional demand than on initial job-search difficulties, as explained by OECD (2023). The significant salary relationship shows that graduates who experienced more barriers were more likely to fall within lower income categories, supporting Boniol et al. (2019), who associated unequal workforce distribution with disparities in compensation and employment quality among early-career health professionals.

4. Conclusion & Recommendations

The study concludes that the BS Medical Technology program of the University of Perpetual Help–Dr. Jose G. Tamayo Medical University generally prepared graduates for employment and career development. Most secured full-time work within one to three months, primarily in private diagnostic or clinical laboratories and hospitals, and reported that their jobs were highly relevant to their degree. Critical thinking, communication, laboratory, and problem-solving were the most useful competencies, whereas low salary offers, limited job opportunities, and lack of experience were the leading employment challenges. Employment relevance was significantly associated with employment status, salary, and career development activities; competencies were significantly related to employment status, job relevance, and institution type; and employment challenges were significantly associated with time before employment and salary, but not with employment status or job relevance.

Based on the findings, the BS Medical Technology program should continue strengthening critical thinking, communication, and laboratory competencies. The university should enhance career support services and linkages with healthcare institutions to facilitate employment and career advancement. Graduates should pursue continuing professional development, certifications, advanced studies, and laboratory specialization to improve employability and opportunities for promotion and higher income. Future studies should use larger, more representative samples and examine additional factors affecting employment outcomes and career development.

Compliance with ethical standards

The authors declare no conflict of interest. This study complied with recognized ethical standards for human-participant research by ensuring voluntary participation with informed consent, the right to withdraw without penalty, and strict confidentiality through anonymous, secure, and aggregated data handling. Given the focus on psychological well-being, procedures were non-invasive, and safeguards were observed to minimize discomfort, with guidance to appropriate support services when needed, and required institutional permissions were secured for instrument use and access to academic records.

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